

FY03 Goals – Hangar Iridite replacement

- Partial completion: Small jobs only

The Hangar (Building 4) needed a replacement for a product called **Iridite 14-2**. Iridite contains **chromic trioxide**, a carcinogen. GRC maintains two research aircraft (a Lear Jet 25 and a DeHavilland DHC-6 Twin Otter). Prior to coating application Iridite 14-2 is used to touch-up small areas. Surface preparation is conducted by hand applying with wipes or cotton swaps.

In May 2003, the Hangar began using **SEMPENS paint touch-up sticks** for **small jobs only** to replace Iridite. Involved: Steve Hayes, Bud Schutte.

The Sempens paint sticks do contain small amounts of toluene and other hazardous chemicals, but paint that performs properly (especially for aircraft) is extremely difficult to manufacture without hazardous chemicals.

Although the Hangar staff was pleased with the paint sticks, they did not provide the corrosion protection of the Iridite. Since MIL-SPEC 5541 specifications were not met by any other product, we can only go as far as to replace Iridite with Sempens sticks for small jobs, which was approved by the Air Force.

Currently funded touch-up paint research projects involve non-chromate pretreatment, cadmium alternatives, and the hand-held laser. Per the manager for the specifications (AF Corrosion Office), most likely a product called "Precoat" will be the answer, but the best-case scenario will give us a usable product during FY04.